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**THE SPIKED WHEEL-TRAP
AND ITS DISTRIBUTION**

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THE SPIKED WHEEL-TRAP AND ITS DISTRIBUTION.

The game-snaring device that in English is generally called the spiked wheel-trap — an eminently descriptive designation — and in German often "Tret-Teller", is from many points of view worthy of a closer study.¹ Among other things, its present geographical distribution offers much that is of interest. As regards appearance, this trap will be known to every one who occupies himself with African ethnography, so that I shall only give a brief description of it, and for the rest refer to the illustrations. This trap consists of a strong hoop made out of withies or creepers, or, to speak more correctly, of two hoops, bound tightly together, and between them are driven a number of pointed wooden spikes set closely together (outside of Africa material other than wood is also used), the points of which, in the flat type, meet in the centre of the hoop. Occasionally the points meet and overlap, or again there may be a small open space in the centre. To make the whole contraption more rigid, it is usual to lash the spikes to the hoop. When sinews or leather thongs are used for this purpose, they are in places rubbed in with hyena dung (such is the Nuer practice),² in order to prevent that voracious beast from eating the straps.

¹ In a work on hunting and trapping methods among African peoples I have described this type of trap, and set forth its distribution in eastern Africa (*G. Lindblom, Jakt- och fångstmetoder bland afrikanska folk. I, pp. 72, 76, 99. Stockholm, 1925*). In a later treatise, which is also published in Swedish, I have further dealt with this trap, and in a sketch map denoted its occurrence throughout Africa (*G. Lindblom, Forskningar bland niloter och bantu i Kavirondo, särskilt med hänsyn till äldre kulturelement. Föredrag på K. Svenska Vetenskapsakademiens högtidsdag den 31 mars 1927. K. Svenska Vetenskapsakademiens årsbok 1927, p. 260. Upsala 1927*). Lack of space prevented me from giving my literary sources for the compilation of this map, and I have besides subsequently obtained further supplementary information. For these reasons I have here collected my material in a separate monograph in English.

² *J. G. Millais, Far away up the Nile, p. 181. London 1924 (from H. C. Jackson, Sudan Notes and Records. Vol. VI. 1923).*

Traps of this description are in the first place used for antelopes, but in some parts (especially Uganda and the White Nile area) also for larger game, such as elephant, buffalo, giraffe and rhinoceros. They are set in places where animals come to drink, or in game-paths, and, according to my personal observation — a thing not pointed out in the existing literature — generally several of them at the same time. So at any rate I was told by natives in Kitosh (northern Kavirondo), where in one and the same hut I used to find many such traps, in one instance to the number of twelve. In the ground is dug a hole of a size to fit the trap, the dimensions of which depend upon the class of animal for which it is intended, and the trap is placed over it. Around its edges is usually laid a running noose made of strips of hide, the other end of which is fastened round the foot of a tree, or to a block of wood which is usually buried in the ground. The trap is then carefully masked by covering over with earth or sand, etc. When an animal put its foot through the hoop, the latter attaches itself to the leg by means of its spikes, at least long enough to enable the noose to tighten up about it. The animal is thus more or less a captive of the trap until the hunters arrive to finish it off. The detail of this trap being, as a part of its equipment, also supplied with a noose — especially in Africa this feature is very frequently met with — does ~~not~~ appear to have been fully appreciated by all who have noted its occurrence. In cases where no noose is used, by the clinging of the hoop to the leg of the animal — whereby its stout spikes penetrate deeply and cause sharp pain — the latter is materially hampered in its efforts at escaping from the pursuing hunter.

We shall now pass on to the instances I have collected of the occurrence of the wheel-trap in Africa. Particularly as regards the eastern portions of the continent they will, I trust, be found fairly complete.

1. DISTRIBUTION IN AFRICA.

The earliest instances known date back to ancient Egypt, there being among them even a prehistoric specimen consisting of a tomb-painting at Hieraconpolis. It shows, according to Flinders Petrie, a large trap "wiht four animals standing around it, to provide game for deceased".¹ The trap that Capart depicts from Hieraconpolis, which is here reproduced (fig. 2), shows, however, five antelopes.² Such a trap, made of splints of palmsticks was found by Petrie, and is now in the Anthropological Museum, Oxford.³ Perhaps this is the one referred to by C. G. Seligman when a few years ago he was kind enough to inform me that there is a specimen in the Pitt-Rivers Museum, dating to either the 20th or the 22nd dynasty.

The most northerly instance I know from modern Egypt is from the Ababde.⁴ Next come: Arabs of the late Turkish province of Dongola,⁵ and, according to Russegger, other Arabs, probably Kababish or

¹ *Flinders Petrie, Egypt in Africa*, II, p. 168. *Ancient Egypt*, P. IV. London 1914.

² *J. Capart, Les débuts de l'art en Égypte*, p. 204, fig. 148. Bruxelles 1904 (Dr. J. Lips has drawn my attention to this instance). Capart compares this figure with the pattern on an earthenware cup found at El Amrah by MacIver, fig. 3. (*MacIver and Mace, El Amrah and Abydos*, Pl. XV:17. London, 1902). It is also not improbable that fig. 3 represents the spiked wheel-trap, but in that case there would be not one but eight of these traps, grouped in a circle, and tethered to a point in its centre. That modern wheel-traps are usually set to the number of several in the same place is a circumstance I have already pointed out, but on the other hand it would not seem as if they were all tethered to the same point. On the El Amrah cup this arrangement may, however, have been made for decorative reasons.

³ *Petrie, loc. cit.*

⁴ For gazelle, collected by G. W. Murray of the Egyptian Desert Survey. For this information I am also indebted to Prof. Seligman.

⁵ This trap, used for smaller species of gazelle ("Antelope Dama and Antelope Doreas"), measures "8 inches", has an aperture in the centre, and is provided with a noose. To the latter is fastened a heavy cudgel with which the ensnared animal itself smashes its legs in its attempts at running away. *E. Rüppell, Reisen in Nubien, Kordofan und Arabien*, p. 71. Frankfurt a. M. 1829. Cf. *R. Hartmann, Die Völker Afrikas*, p. 284, and *Wilkinson, The Manners and Customs of the ancient Egyptians*, III, p. 8. London 1837.

Shaiqie,¹ further the Baggara tribe Selim on the White Nile² (fig. 4 A), Hamran³ and Beni-Amer (district of Kassala)⁴ and the population on the eastern border of Gallabat.⁵ Then there are: the southwestern

¹ *J. Russegger*, Reisen in Europa, Asien und Afrika, 11:2, p. 244. Stuttgart 1844. Here R. mentions the trap from the "Bahiuda tribe" of Kordofan, more particularly the vicinity of the village of Sakra, N. E. of El Obeid. Prof. Struck has kindly pointed out to me that "Bahiuda" is only the old way of writing Bayuda, the steppe region in the left elbow of the Nile, between Korti, Berber and Omdurman. Thus Bayuda is not the name of a tribe. Judging from the route taken by Russegger, Struck further writes me, his statement probably refers to Shaiqie or Kababish, probably the latter, and in any case to some Arabian tribe (*Seligman*, The Kababish, Harvard African Studies, II, Cambridge 1918, is not within my reach).

As far as can be gathered from the account given by R., in the region about Sakra, with its abundance of game, the trap was used not only for antelopes but also for two species of bustard (Cf. p. 11).

² Is contained in Riksmuseum, L. Jägerskiöld's collection, Inv. ox. 20. 92. It is not flat but of shallow cornet shape (fig. 4 a). Used for gazelles, according to Jägerskiöld. The noose, which is plaited from gazelle tendons, is tethered to a stake driven into the ground.

³ Used for rhinoceros. Baker gives a detailed description of this trapping-method, and from what he observes I will cite the following. The traps are set under certain trees where rhinoceros are in the habit of stopping, as evidenced by their accumulated droppings. The end of the noose is fastened to the trunk of a tree that has been felled for that purpose, and deeply notched at one end to prevent the rope from slipping. "This log, which weighs about five or six hundredweight, is then buried horizontally in the ground, and the entire trap is covered with earth and carefully concealed. The surface is smoothed with a branch instead of the hand as the scent of a human touch would at once be detected by the rhinoceros. When completed a quantity of the animal's dung is swept from the heap upon the snare". *S. W. Baker*, The Nile Tributaries of Abyssinia, p. 366. London 1867. Vide also *S. Baker's Jagdzüge am Atbara und Setit*, p. 356, Globus 1870.

⁴ Called *shereker*, with a running-noose made of twisted hide, which is fixed to a lopped-off branch or a small tree, just large enough to check the progress of the animal, but not to stop it. The beast, dragging the bush after it, leaves behind a track by which to guide the hunter. Those traps intended for catching antelopes are about the size of a soup-plate; but for buffaloes, giraffes, and other large-footed game, they are made much larger. *F. L. James*, The Wild Tribes of the Soudan, p. 176. London 1883.

⁵ A log buried in the ground and a piece of cord with a noose attached to it. Finally, as a rule, the log is pulled up by the exertions of the beast, and the hobbled creature limps away, but is easily caught. *A. J. Hayes*, The Source of the Blue Nile, p. 185. London 1905.

Galla,¹ Elgumi, on the north end of Lake Rudolph,² Turkana,³

¹ Specimen in the Berlin Museum (No. III. A. 2265) stated to originate from the Galla tribe Ain-esch-Shems on the upper reaches of Dinder, a tributary of the White Nile.

² On the Omo River. The traps are tied to trees. *H. S. H. Cavendish*, Through Somaliland and around and south of Lake Rudolph. *The Geogr. Journal*, 11, p. 384. London 1898. Snare made from strips of hide, fastened to a block of wood which the animals drags along. Used for catching Topi and other antelopes. *A. Neumann*, Elephant-hunting in East Equatorial Africa, p. 337, with fig. London 1898.

³ In the Riksmuseum. Collection E. von Otter, Inv. 1925, 20. 19—21. The traps are smeared with some substance, probably hyena excrements (Cf. Nuer, above). They are of such small size (the largest has a diameter of 28 cm.), that they are unlikely to have been used for anything bigger than antelopes. The Turkana, however, even catch elephants by this method. This collection also contains three stout running nooses made of twisted hide and provided with a loop at either end (the length of the largest one being 215 cm. Fig. 5a). Also vide *H. Johnston*, The Uganda Protectorate, p. 874. London 1902.

According to the diary left behind by the deceased Captain Baron Eric von Otter from the Turkana, these traps were used for catching antelopes and gazelles, and also for giraffe and rhinoceros. His mother (Mrs. A. Bergström) has very kindly let me have an excerpt from his diary as regards this trap, and as his description is very telling I here cite it although it does not, on the whole, differ from accounts that have been published from other sources. "Here and there in the foot paths (between Kateruk and Turkwell) I came upon traps of a peculiar type, placed by the Turkana to catch game, and from the old villager who still kept with us I bought some of them. As to whether they were his property or not, I have not the slightest notion, but there is no doubt that he cashed in the payment for them. As he was very keen on selling, it is possible that they belonged to some of his kinsmen, but neither is it improbable that they were the common property of the tribe. The whole apparatus consisted, strictly speaking, of several parts: a running noose made of raw-hide, a kind of wheel — though without a hub, but with all the more spokes (consisting of wooden splinters) — a heavy log of wood to serve as a brake, and a hole dug in the ground, above which the whole affair was set as a trap. The hole was about 25—30 cm. in diameter, and carefully dug with perpendicular walls. This circular trap was placed on top of the hole, and on top of the hoop, following the inner side of its circumference, was laid the noose, with its other end attached to the log. The whole thing was exceedingly carefully covered up with grass and sand, so as to effectually disguise the trap from animals. When then an unsuspecting oryx, or Grant's gazelle came along the path and trod into one of these trap-set holes, the hoop slid high up on its leg and prevented the snare from slipping off. In the vain efforts of the animal to get away, the noose was only drawn tighter about the leg; the log of

Suk,¹ Ndorobo,² Nandi,³ natives in Kitosh, northern Kavirondo⁴ (fig. 4 B), Lango,⁵ Karamoja,⁶ Acholi,⁷ Shuli,⁸ Bari,⁹ Nuer,¹⁰ Baki-

wood hindered a speedy flight, apart from leaving an easily followed spoor, which soon led the Turkana on to their quarry. Besides, antelopes and gazelles were not the only game caught in this trap, but also giraffe and Rhinoceros."

¹ Johnston, *ibidem*.

² Specimen in the British Museum.

³ Johnston, *ibidem*.

⁴ Called *siteru*, Riksmuseum, author's collection, Inv. 1921. I. 112—119. The diameter of the largest one is 29.5 cm., and that of the smallest, 21.5 cm. They are in the first place used for hartebeests, and are scattered in great numbers over the steppe, in places frequented by antelopes. The running nooses (*luchova*) are plaited from strips of hide with a loop at one end, by means of which it is tethered to a stout peg driven into the ground. My collection contains two nooses of this kind, the longest one being 3.5 metres, with a thickness of 1.4 cm. (fig. 5 b).

According to their own statement, the natives of Kitosh only began using this trap about 30 years ago when, they say, it was introduced by the Turkana, who during a period of famine came down to Kitosh to procure food for themselves. This is perhaps an allusion to the great famine prevalent in East Africa in the latter 1890—es.

⁵ Called *otaich*. The noose is fastened to a hidden log, preventing the animal from going any distance and leaving a trail which is easily followed. J. H. Driberg, *The Lango*. p. 118. London 1923.

⁶ C. W. Hobley, *Notes on a Journey round Mt. Masarwa or Elgon*. The Geogr. Journal, p. 183. London 1897. P. H. Powell-Cotton, *In unknown Africa*, p. 301. London 1904. For elephants; noose of thickly-plaited raw-hide rope, attached to a heavy log of wood. Magic powder was strewn about the spot; as is well known, magical aids are of great import in Africa, no least when it comes to elephant-hunting.

⁷ R. Kmunke, *Queer durch Uganda*, Pl. 67. Berlin 1913.

⁸ For antelopes. Emin Pascha. *Eine Sammlung v. Reisebriefen*, herausg. v. G. Schweinfurth u. F. Ratzel, p. 268. Leipzig 1888. *Ratzel*, *Völkerkunde*, II, p. 249. Leipzig 1895 (specimen in Wien Museum depicted).

⁹ A. B. Lloyd, *Uganda to Khartum*, p. 262. London 1906. According to Lloyd, this trap is found among a Bari group living east of Nimule.

¹⁰ Giraffe trap, diam. 2 feet; noose with a log at the end. Millais, p. 181.

tara (Banyoro),¹ and Baganda.² The most southerly instance known to me of the occurrence of the wheel-trap in East Africa is from the Kiziba country west of Lake Victoria, where it is called *murita*, and only measures 12—20 cm. in diameter, wherefore it can hardly be used for other game than antelopes.³ The German writer, Captain Richter, who has described and diagrammatically sketched the trap from the Bukoba district, calls it *mruti*.⁴

According to Johnston, the wheel-trap "is found throughout Eastern Africa, from Nubia down to the vicinity of Nyasaland".⁵ Unfortunately Johnston does not cite any instance of this southerly extension which, however, does not *per se* appear at all improbable. All my energetic searchings through the literature notwithstanding, I have been unable to trace this trap farther south than Kiziba.

From Africa to the north of Sahara I have also unsuccessfully looked for mention of this trap in the literature. Perhaps this may only be due to ethnographical works on this region being rather scantily represented in Swedish public libraries, as the trap, according to verbal information given me by Count Birger Mörner, at any rate occurs in eastern Algeria, in the vicinity of Touzeur and Khenchela.⁶

¹ For elephants. Rings made of strong creepers, fastened to trees by strong ropes. "Sometimes these traps were set without ropes, for the pain prevented the animal from keeping up with the herd and from going far away". *J. Roscoe*, *The Bakitara*, p. 317. Cambridge 1923.

² Buffalo trap, fastened to a stake by a stout cord, strong enough to hold the most powerful animal. *Roscoe*, *The Baganda*, p. 448. London 1911. Neither is here any mention made by the writer of any noose. *Johnston*, *The Uganda Protectorate*, pp. 668, 873.

³ *H. Rehse*, *Kiziba, Land u. Leute*, p. 38. Stuttgart 1910. Provided with a running noose, the farther end of which was fastened to a lump of wood.

⁴ *Richter*, *Einige weitere ethnographische Notizen über den Bezirk Bukoba*. *Mitt. aus d. Deutsch. Schutzgeb.*, Bd. XIII, p. 66. Berlin 1900.

⁵ *Johnston*, p. 874.

⁶ Count Mörner has been kind enough to inquire on my behalf about this trap from Biskra, and on Nov. 39th, 1926, he wrote to me: "The Arab whom I got interested in the matter is a son of the great marabout, Sidi Feaieb Ben El Hafanoui, and he told me he had personally come across them at Négrine near Touzeur, and at Kanzat Sidi, which belonged to Nadji of the community of Khenchela. They occur in different sizes, for gazelles as well as for larger animals".

But, on the other hand, no result was obtained from the enquiries that on my behalf were made by a friend of mine, Mr. O. Hedenfeldt, in Algiers during an extended tour through the interior recently, particularly among the natives of the districts of Jebel Aurès and the Hodna mountains, where antelopes are said to occur in abundance. Neither was Mr. H. able to obtain from M. Marçais, the director of the Musée national des Antiquités at Algiers, any information as regards the spiked wheel-trap, of which the latter gentleman had no knowledge.

Among the Tuaregs the trap occurs, there being one such, designed for antelopes, in the Berlin Museum (No. III. B. 1972), although without exact specification as to locality. As however Prof. Schachtzabel states that it was brought home by Spatz, it may nevertheless be possible to localize it to some particular tribe. It is with certainty known to be in use among Tuaregs in Air (fig. 6).¹

Although I am not in a position to adduce positive proof, it is however probable that the Air wheel-trap is geographically directly connected with those that occur in Nigeria and neighbouring regions farther west. Thus it occurs among the Bolewa (Northern Nigeria, N. Provinces)² and presumably also among other tribes in district of Bauchi,³ and among the Bachama (Bassama) on the Benue.⁴

From the region west of Bauchi and Bachamaland I know of two instances, viz. from northern Togoland and the northern Gold Coast. It appears to me of little likelihood that these traps should be geo-

¹ *F. Rennell Rodd*, *The people of the veil*, Pl. 24. London 1926. "Star" game trap.

² Specimen in the British Museum, brought home by C. K. Meek. In his book, *The Northern Tribes of Nigeria* (Oxford 1925), it does not seem as if M. mentioned this trap.

³ Captain Count F. Cronstedt, lately deceased, told me that he saw this trap in the Bauchi district during his term of service in Nigeria in the beginning of the 1890-es.

⁴ *Boyato*, "an apparatus for the capture of buffaloes and hartebeests, and one of the traps of most common usage in Bachamaland". Is placed in game paths leading to their watering places. The hoop consists of "wooden slivers" tied together, and the noose, which is of hide, is with its farther end fastened to a heavy wooden pole which is hidden in the grass. Everything is carefully covered up with sand and leaves. The more an animal kicks in trying to rid itself of the hoop, the more the snare tightens. *N. H. Brønnum*, *Folkeliv i Sudan*, p. 94. Kjöbenhavn 1923.

graphically isolated, they being instead probably connected with those occurring in Nigeria, although I have no data from the intervening region. From northern Togoland the Cologne Museum possesses an antelope trap (*tischandjo*),¹ locality not specified, and in the Berlin Museum there is one from the "Barba" (Bariba) of Borgu.² According to v. Luschan's expressed opinion, the occurrence of this type of trap, together with other ethnographical details, as well as the very name of the tribe (Barba), indicates Arab and Berber relations. In the British Museum there is a specimen from the Northern Territory of the Gold Coast.³

Lastly, the Swedish Riksmuseum possesses a large specimen, with a diameter of 53 cm. (Inv. 09.21.320), stated to originate from the Maka of Cameroon (fig. 4 C). It forms part of a collection from that people, purchased through Museum Umlauff in Hamburg. I mention this instance in the last place as it seems to me somewhat doubtful. In all the voluminous literature available on Cameroon I have not met with a single reference to this trap.

Before leaving Africa, I will also touch upon the statements that have been given to the effect that the spiked wheel-trap is also used for catching birds, bustards in particular. Such an instance, from the Bayuda steppe, by Russegger, has already been cited (p. 6, N. 1). About the Alur of the White Nile, Stuhlmann writes "Schlingen sind entweder gewöhnliche Laufschnellen oder auch die in Unyoro gebräuchlichen Kreise von feinen Ruthen mit concentrisch nach innen zulaufenden Stacheln, auf die das Tier tritt und die ihm dann am Fusse hängen bleiben. Beide Arten werden besonders für Rebhühner und Trappen angewendet".⁴ A similar statement is given by Emin Pascha in

¹ Diam. 24 cm. Mus. No. 23014. Depicted by J. Lips, *Fallensysteme der Naturvölker*, fig. 90. Leipzig 1927. This paper is also embodied in *Ethnologica*, III (1927). Cf. F. Graebner & J. Lips, *Führer Rautenstrauch-Joest Museum*, p. 137. Köln 1927.

² F. v. Luschan, *Pfeile mit einseitigen Kerben*, p. 329. Globus, 777. Dr. Struck has had the kindness to draw my attention to this instance.

³ According to information kindly supplied by T. A. Joyce, British Museum: "We have two specimens of the spiked wheel-trap from Northern Territories, Gold Coast, collected by Capt. (now Sir Cecil) Armitage, when he was Deputy-Governor there. His notes state that they come from the north-western and southern provinces".

⁴ F. Stuhlmann, *Mit Emin Pascha*, p. 512. Leipzig 1894.

respect of the Shuli: "Kreuz und quer überflochtene kleine Reifen hängen vor den Hütten zum Fange von Frankolinen und Trappen, die hier häufig sein sollen. Tritt der Vogel auf den Reif und durch das Geflecht, so kann er den angebundenen Reif nicht mehr los werden. Grössere, nach demselben Principe construierte Fallen für Antilopen — Ringe mit concentrisch zusammenlaufenden Dornen — wie man solche besonders in Uganda und Unyoro überall sieht, finden sich häufig..."¹ In these two statements — at all events as regards the Alur — no other implement can very well be alluded to than the spiked wheel-trap, but nevertheless I have never among all the other descriptions given as to its uses found any mention of it being also meant for a bird trap. If it were not a question of two such experienced men as Emin and Stuhlmann, one might be inclined to believe that there must be some mistake, seeing that in order to set this type of trap in action it is necessary for the game to be of sufficient weight, when treading on the trap, to put its foot right through it, something no bird is likely to manage, not even a bustard — though possibly an ostrich. The explanation may perhaps be that these traps are of less resistance and made of more pliable material than the ordinary wheel-traps that are meant for large mammals. As regards ostriches, I have made special study of the methods by which they are hunted in Africa, but never discovered a single instance of wheel-traps being used for them.²

2. THE SPIKED WHEEL-TRAP IN ASIA AND EUROPE.

If we now turn to Asia, this trap is not known to me from the regions that are anywhere near bordering on Africa, and, — although I have gone through a considerable mass of literature on Asia — I have, in all, only found instances of it from two areas, viz. Central Asia and Caucasus.

Sir Aurel Stein found one specimen at the oasis of Tun Huang whilst excavating an old Chinese watch-station. This oasis was during the Han period an important centre of the Chinese empire in these parts, but it is probable that the trap here found was nothing to do with

¹ *G. Schweinfurth u. F. Ratzel*, Emin Pascha, p. 268. Leipzig 1888.

² *G. Lindblom*, Metoder för strutsjakt bland afrikanska folk. Fauna och Flora p. 13. Upsala 1922. Reprinted in amplified form in *Jakt- och fångstmetoder*, I, pp. 11 *et seq.*

the Chinese. It is of the same flat type as in Africa, only the wooden pegs are not so close together (fig. 7).¹ Captain Bower describes a trap of apparently quite the same type (fig. 8) from his No. 68 Camp, about 300 km. N. E. of Tengri-Nor, where he found a number of them placed round a water-hole, for catching antelopes. The spikes were made of horn, and the hoop fastened to the horn of some animal, buried in the ground; of any noose there is no mention.² The Champas, the pastoral people of Eastern Tibet, use this trap provided with wooden teeth and attached by a rope to a large wooden peg driven into the ground. "Great numbers of wild horses, sheep, and antelopes are killed in this manner".³ Lastly, Sven Hedin met with this trap, designed for antelopes, in the neighbourhood of Lake Shemen-tso in Karakorum, though he has published no illustration of it. He has, however, been kind enough to do for me a sketch which is here reproduced in fig. 9. Its spikes are made from the ribs of antelopes, and it is also fitted with a noose, as in Africa.⁴ What is especially interesting about this specimen is the deeply conical form of the trap, and the method of securing the rope with ice.

¹*A. Stein*, *Serindia*, II, pp. 704, 782, IV, Pl. LIV (Vide also *T. A. Joyce*, *Descriptive List*). Oxford 1921.

²"Consisting of a ring of about eight inches diameter, in which were sharp pegs made of horn converging downwards; the animal, if he put his foot through, would be unable to extricate it, and as the ring was secured to a buried horn, could not get away with it". *H. Bower*, *Diary of a Journey across Tibet*, p. 117. London 1894.

³"The Champas are keen in the pursuit of game, which they kill in large quantities, partly with firearms and bows and arrows, but chiefly with a kind of trap called *Redokh chum*... It consists of a ring made of rope, to whose inner surface are attached elastic sharp-pointed slips of wood converging toward the center of the ring, where a space is left sufficiently large to allow the passage through it of the animal's foot. Small holes are dug in the ground near the water which the wild animals are known to frequent. These traps are placed at the top, hidden from view by a covering of earth, and attached by a strong rope, also concealed from view, to a stout peg, which is driven into the ground at a considerable distance off..." *W. Rockhill*, *Notes on the Ethnology of Tibet*. An. Rep. Smithsonian Institution 1893, p. 714. Washington 1895.

⁴"Plates of rib bones of antelopes are firmly fixed in a ring of hard twisted vegetable fibres, which form a funnel with the points in a ditch. The antelope is enticed into the trap by a row of small cairns, and tramps about in the

Worth noticing is also Hedin's brief reference to the antelopes being enticed to the traps by means of a row small cairns. It appears to me very probable that the natives set out *two*, or even *several*, rows of cairns and subsequently *drive* the animals between these rows towards the traps by essentially the same method as is employed in northern Asia (e. g. among the Samoyedes), among Indians and Eskimo in arctic North America, formerly also among Greenlanders, and the northernmost mountain Lapps of Scandinavia, and still among the Bushmen, who are the only people in Africa I know of using this method of hunting. In the monograph referred to above, on native methods of hunting and trapping game in Africa, I have, although somewhat cursorily, touched upon this particular kind of game-driving which undoubtedly is of most ancient origin.¹

It is only in the remoter parts of Tibet and the Himalayas that the natives are likely to hunt game, and where in consequence one may expect to meet with these traps. Through large areas of these regions religion forms an obstacle to hunting of any kind.

It is to be supposed that this trap is represented in Indian museums.

My only further instance from Asia of the spiked wheel-trap hails from southwestern Caucasus, the district of Suchum, where, it appears, it is set for the wild boar. The hoop is of wood and, as in Karakorum, funnel-shaped, and the spikes would seem to consist of metal nails. As to whether the trap here has had an uninterrupted existence, or whether it may have fallen into disuse but subsequently been readopted by the natives on account of the Russian authorities having deprived them of their arms, is a matter I am unable to pronounce an opinion upon.²

funnel, the plates giving way, but forming immovable impediments when he attempts to draw his hoofs out. But the snare must be held secure if it is to have the desired effect. A rope as thick as a finger is made fast in the bottom of the ditch, which is filled with water, and after freezing becomes as hard as stone. The free end of the rope forms a noose above the ring of fibres, which tightens when the animal first attempts to lift his leg and holds down the funnel of ribs. The more the poor animal jumps about, the faster is the hold of the twisted snare". *S. Hedin*, *Trans-Himalaya*, II, p. 274. London 1909.

¹ *G. Lindblom*, *Jakt- och fångstmetoder bland afrikanska folk*, II, pp. 130 sq. Stockholm 1926.

² "Dass die von den russischen Behörden so weit wie überhaupt entwaffnete Bevölkerung Sauen im Eisen fing, und zwar sowohl in Tellereisen wie in nägeln-

As regards modern Europe, it is only from one locality that I have information as to the occurrence of this trap, namely a forest district on the border between Hungary and lower Austria, westward of Lake Neusiedler (Sieggraben, Hochwolkersdorf, Kaiserwald), whence it is *en passant* mentioned and depicted (fig. 10) by H. M. v. Kadich. In this case it is used by poachers for deer,¹ and consists of a flat piece of wood with iron spikes.² Apart from the material, here too, we meet with an instance of the Karakorum type.

The ancient Greeks and Romans used the spiked wheel-trap (annular piece of wood), fitted with a stout running noose, and fastened to a heavy wooden block. By its means were trapped deer, roe-buck and wild boar. In his dissertation on hunting, Xenophon (*Cynegetica*, 9, 11) gives a very detailed description of the manner in which this trap is used for the capture of deer. This description I will here quote in substance from a German translation,³ the only translation I know of from the Greek original.

bezähnten, unten trichterförmig auslaufenden, hölzernen Trittfallen, wusste ich längst". *Pobiter* (H. M. von Kadich), *Die Schlingensau*. Deutsche Jägerzeitung, 14th Nov. p. 196. Neudamm 1907. For drawing my attention to this I am indebted to Herr J. Alm, Stockholm. To an inquiry which I have addressed to the Tiflis Museum concerning this trap I have received no reply.

¹ I take this opportunity to remark that the trapping methods employed by poachers not infrequently embody many features which are of interest to science. These gentry are largely confined to the use of traps, as gunshots would betray them, and thus a good many ancient methods have been kept up by them.

² "... mit einem aus langen, spitzigen Nägeln und einer durchlöcherten Holzplatte zusammengesetzten Tritteisen". *Pobiter*, Jagdliche Gedenkzeichen aus drei Weltteilen, p. 84, fig. 1. Deutsche Jägerzeitung, 20. Oct., 1907. — Professor A. Haberlandt has been kind enough on my behalf to make enquiries in Austria as regards this trap, although with a negative result. He has referred me to a recently published work, *H. Schischka*, *Fallenkunde und Fangmethoden nebst Anleitung zur Selbstherstellung erprobter Fallen u. Fangapparate* (Klagenfurt, 1926, (of 57 pages), but here there is no mention of the wheel-trap. This is, however, not to be wondered at, as for one thing this small pamphlet does not at all touch upon the subject of traps for big game, and, for another, it only purposes to give advice as to how, in cases of emergency, anyone can himself construct traps of different kinds that are fully conformant to the law and not cruel to the game.

³ *Xenophon's von Athen Werke*. Griechische Prosaiker in neuen Uebersetzungen. Herausgeg. von G. L. F. Tafel, C. R. Osiander und G. Schwab. T. III, p. 1515. Stuttgart 1828.

"These foot-traps have to be plaited from the wood of the yew, with the bark stripped off, so as not to rot". The spikes were alternately of wood and iron, the latter being larger, for the purpose of holding the animal fast, whilst the former were designed to yield so as to allow the foot to penetrate easily through the trap. It was essential that the material of the noose be "Pfriemenkraut", "this being least apt to rot".¹ The far end of this was attached to a piece of oaken wood with the bark left on. Then follows a detailed description as to how a funnel-shaped hole is dug in the ground "five handbreadths deep, and at the top of a width corresponding to that of the trap. The whole contrivance is then carefully masked, by being covered up with grass, leaves and earth. The surplus of the excavated earth is carried some distance away, for if the deer should scent the freshly-turned soil, it would take fright and run away". When the trapper finds that a deer has been caught in the trap, and carried it away, he loosens his dogs on the track left by the log in being dragged along. On cultivated ground Xenophon says, the track is plainly visible, and even over rocky ground it is not difficult to follow up, because of the bits of bark from the log that will be left here and there among the rocks.

The wheel-trap is rarely mentioned in classic literature, although in some authors references to it are met with.² Besides Xenophon, Pollux also gives a fairly circumstantial account of it: the trap is used for deer and boar, and its spikes are partly wooden, partly of iron.³ It is further mentioned by Gratius Faliscus (Cyneg. 92).⁴ Lastly there may be noted some modern works giving adequate descriptions, founded on classical authorities, of the methods of using the trap:

¹ Pfriemenkraut: *Genista*, *Spartium*. Grimm, Deutsches Wörterbuch. 'Pfriemen-gras': *Stipa pennata*, *Nardus stricta*.

² I have given a great deal of time to searching for evidence among the ancient Roman and Greek literature, but my investigations would, no doubt, have produced only an indifferent result had I not been accorded the friendly guidance of experts. Thus it is my pleasurable duty to extend — for most valuable bibliographical directions given me — my hearty and respectful thanks to Professor O. A. Danielsson, Upsala, and Professor J. Bergman, Dr. V. Lagerholm and Dr. B. Olsson, Stockholm.

³ Pollucis Onomasticon, Lib. 5. 32. ed. E. Bethe. Lipsiae 1900.

⁴ "Quid, qui dentatas iligno robore clausit venator pedicas?" Gratius Faliscus, Cynegeticon oder Jagdesang, lateinisch u. deutsch herausg. v. F. Perlet, p. 8. Leipzig 1826.

Pauly-Wissowa, Real-Encyclopädie der classischen Altertumswissenschaft. 17. Halbb. 9: 1, p. 571. Stuttgart 1924.

H. Blümner, Die Römischen Privataltertümer. Handb. d. Klass. Altertums-Wissenschaft, 4: 2: 2, p. 522. München 1911.

A. Rich, Illustriertes Wörterbuch d. Römischen Alterthümer, p. 452. Leipzig 1862.

Daremberg & Saglio, Dictionnaire des antiquités Greques et Romaines, p. 683 (art. *venatio*). Paris 1915.

Miller, Das Jagdwesen d. alten Griechen und Römer (1883), a work which, repeated efforts notwithstanding. I have been unable to obtain.¹

As will be seen from note 4, p. 16, for the spiked wheel-trap the Romans used the appellation *pedica dentata* (*pedica* being the generic word for foot-snares), or *podagra*, the Greek term. Another Greek name for it is *podostrapha*. Both these words were, however, no doubt used for denoting foot-snares in a general way. Although no positive assertion is likely to be forthcoming on this point, it appears to me very probable that the Romans learnt from the Greeks the use of this trap.

According to the kind of game sought, the traps were set in ground of appropriate character: for deer at places where they were in the habit of drinking, in meadows and fields; for boar in marshy and shaded ground. Hence there is great probability that, sooner or later, in ground that formerly was of marshy character there will be found traps of this description, just as, for example, in many places in Europe wooden traps for stepping on, though of a different type, have been found, as in peat-bogs in Scotland and Sweden.

*

Thus we find that, in Africa, the spiked wheel-trap is confined to Hamitic, Niloto-Hamitic, and Nilotic peoples, and certain Negro tribes in the Sudan. Among the Bantus it does not occur, excepting in the case of a few tribes inhabiting the north-eastern border regions, where most of them have for their neighbours Nilotic or Niloto-Hamitic

¹ Works in which are found descriptions of hunting methods, but in which the spiked wheel-trap does not appear to be mentioned, are, inter alia, Vergilius' Georgicon and Bucolica, Oppianus' Cynegeticon (*Max Miller*, Gedicht v. d. Jagd. Festgruss, 41. Versammlung deutscher Philologen. Munich, 1891), Plinius secundus' letters.

peoples (Ynyoro, Uganda, N. Kavirondo, Bukoba, Kiziba). The distribution of their spreading out into two main groups, one easterly and one westerly, which is shown on the map in fig. 1, is, however, perhaps not absolutely correct, which in such case will be due to our incomplete knowledge of the ethnography of the intermediate portions of the Sudan. This I would merely mention in passing.

As regards the origin of this trap in Africa, its distribution there seems to me to indicate its having disseminated from the Hamitic people of the north (prehistoric evidence is at hand of its occurrence in Egypt). One thing that perhaps should be taken into account is that its antiquity in the African Mediterranean region may date back from later paleolithic times; to this I shall recur below. Of secondary importance is the question as to whether it found its way into the region interior of the upper Guinea Coast via Sahara, or by an east-to-west direction from the White Nile by way of the Sudan. Von Luschan's theory, referred to above (p. 11), that its occurrence, among other things, in northern Togoland points to Arab influence appears to me of but slight probability. For in that case the trap surely would be found in the portions of East Africa that are influenced by Arab culture (like the coastal region) where, however, it is altogether absent. Neither does it seem — contrary to what one might have expected in view of its distribution generally — to be employed in Arabia, at any rate not in modern times.¹ The fact of its occurrence among Arabic tribes in the Anglo-Egyptian Sudan is in my opinion due to adoption from their Hamitic neighbours, and so that a certain specific reason may well have contributed, namely that an animal caught in a trap of this kind can conveniently be killed in accordance with the ritual proscribed by the Mohammedan religion.²

In Asia we find this trap in regions that from an ethnographical point of view are noted for their isolation or for upholding ancient cultural forms in general, viz. Central Asia and Caucasia. In these parts

¹ Professor V. Christian has been kind enough to inform me that he has no knowledge of this trap from Arabia. As to whether there is any mention of it in ancient Arabian authors I have had no opportunity of exhaustively investigating. L. Mercier, whose recently published book (*La Chasse et les Sports chez les Arabes*, Paris, 1927) is to some extent founded upon ancient sources, makes no mention of it.

² Hayes (*op. cit.*, p. 185) makes an intimation to that effect when he says that the trapped animal "can then be killed as the Mohammedan rite requires".

it no doubt constitutes a survival. That the same applies to it as regards Europe appears to me highly probable although, on account of paucity of material, I will not venture upon any particularized speculation on that head.

One thing seems, however, certain, and that is that this type of trap is a cultural element of exceedingly venerable age. Pointing to this are its wide distribution and the old-time character of its material in Africa and Central Asia (wood, horn or bone). It is by no means improbable that this trap dates back to the paleolithic era. In fact, this theory has recently been advanced by Lips¹ who as nothing but "tret-fallen" looks upon certain of the well known figures from the later paleolithic era existing in the Pyrenean peninsula and the south of France, which hitherto by most scientist have been interpreted as huts.² Lips' theory³ is worth every consideration; but in working upon it great caution and discrimination should undoubtedly be observed.

Just as well as among the figure representations found in southwestern-European caves, the spiked wheel-trap may be also looked for in the rock-carvings of northern Africa and Sahara, the oldest ones of which would at least be of late-paleolithic age, judging from their depictions of rhinoceros, giraffe, and buffalo, animals which for long ages have been extinct from the animal world of northern Africa. In particular there is one such carving, from Tabelbala in Sahara, which, both as regards appearance ("cercle centr   et radi  ") as dimensions (diam. 0.45 m.) may quite possibly represent a trap of this kind, and the fact of its being associated with pictures of animals must be admitted as in some degree lending colour to such a supposition.⁴ Even certain of the "symbolic wheels" occurring in north-African rock-carvings might possibly be taken into account.⁵ On the other hand,

¹ J. Lips, *Fallensysteme der Naturv  lker*, pp. 132 *seq.*, 142, figs. 228–229. Leipzig 1927.

² Lips, fig. 228. H. Breuil, *Les peintures rupestres de la P  ninsule Ib  rique*, fig. 14. *L'Anthropologie* 1918–19.

³ I am here only taking into account the spiked wheel-trap, thus leaving out of consideration Vinaccia's (*L'Anthropologie*, 1926, p. 41) and K  hn's interpretations of the "tectiformes" as representing game-pits, game-nets, etc.

⁴ H. Breuil, *Station de Gravures rupestres d'Aguilet Abderrahman (Sahara Central)*, p. 160, fig. 2. *L'Anthropologie* 1923.

⁵ L. Frobenius–H. Obermaier, *Hadschra Maktuba*, p. 56, Taf. 26, 27, 32. M  nchen 1925.

similar figures are also found in parts of the world (e. g. North America) whence we do not know the wheel-trap, and without occurring together with animal figures.

Leaving out of consideration these last mentioned rock-pictures of doubtful significance, it appears very probable that this type of trap had its "cradle" in Asia and thence spread to Africa and Europe. It is, as we see, to such a degree specialized in its form that there is good ground for the assumption of its having had a monogenetic origin. But again, should it become apparent that it actually occurs in the paleolithic sections of southern Europe and northwestern Africa, then the question becomes more complicated, and in such case it is presumably more likely that in earlier times it was in use among a paleolithic race of hunters in the Mediterranean basin and thence gradually been disseminated in different directions.

Further, as regards the *form* of the trap, one cannot help noticing that in Africa it is practically everywhere flat, whilst in other regions it is more or less of a conical shape, this being especially the case in Karakorum where it bears great resemblance to a bag net. On the other hand, the plane type occurs, or formerly did so, in Central Asia, as has been shown by Stein's find. I do not believe that undue importance should be attached to there being two type varieties, especially as there are intermediate types between the extremes. At the most one may reflect upon the Karakorum type being one out of many instances that show how closely allied many hunting implements are to fishing appliances. Very great similarity undeniably exists between the spiked wheel-trap and those African rat-traps of bag-net shape, out of which the rat is prevented to escape by means of the mouth of the trap being set round the edge with sharpened sticks, pointing inwards. Similarly constructed traps for wild pigs are found on Madagascar and among the Malay,¹ and Schischka depicts a trap of this kind for weasels and rabbits, in which sharp-pointed horseshoe nails are driven into the edge of the circular entrance.²

*

In conclusion I would say a few words on the possible occurrence of the wheel-trap in *North America*, in connection with Lips' assumption that he has found it among the drawings on the so-called Lenape stone

¹ Lindblom, *Jakt- och fångstmetoder*, II, pp. 53 sq.

² Schischka, *op. cit.*, p. 29. fig. 28.

(Lips, fig. 229). Personally I have never succeeded in finding any mention of this trap from America, and W. Krickeberg and E. Norden-skiöld have kindly informed me that neither have they ever heard of it from that continent. This does not, however, prevent its having been in use there in ancient times, but as long as Lips' theory is not supported by stronger evidence than the drawings on the Lenape stone, the safer plan is to suspend judgment. I have a letter from Dr. Krickeberg in which he kindly points out to me that a striking analogy to one of the figures on the Lenape stone may be seen among the petroglyphics on the "Indian God Rock" in Pennsylvania, even to the three dots within the circle being common to both drawings.¹ The latter similarly includes animal figures, and thus it is very possible that also in this case a representation of some sort of trap is intended. It may as yet be too early to give a definite decision on this point. Krickeberg, whose reply to my question I allow myself here to cite, is only prepared to give a hesitating opinion. He writes: "Eine bestimmte Ansicht über die Bedeutung dieses Zeichens zu äussern möchte ich eigentlich nicht wagen. Mir scheint es auch wegen der Verbindung mit den Tierzeichnungen möglich, dass es sich um eine Fallendarstellung handelt. Aber ich glaube nicht an eine Tretfalle, von deren Existenz in Amerika ich nichts weiss sondern eher an eine Fallgrube, zu der von allen Seiten konvergierende Zäune, Hecken oder dgl. hinführen, die ja auch allein, in Verbindung mit einem Korral oder einem Felsabsturz, auf den sie hinführen, in Nordamerika vorkommen. Man könnte auch an einen *Korral* denken, doch halte ich Fallgrube für wahrscheinlicher wegen der drei Punkte oder Kreise im Innern, die möglicherweise spitze, eingepflanzte Pfähle bedeuten. Mit dieser Deutung lässt sich allerdings das viereckige Zeichen auf den "Indian God Rock" (*d* Mallery), nicht recht in Einklang bringen. Das dritte Zeichen (*e*) könnte dagegen eine einfache Trichterhürde mit Fallgrube am Ende sein. — Aber wie gesagt, alles das sind mit grosser Reserve geäusserte Vermutungen."

Figures recalling wheel-traps also occur unassociated with animal figures, as vide Mallery, Pl. X, d, and figs 21, 152.

Everything considered, as far as America is concerned the adducement of authentic evidence of the occurrence in that continent of the wheel-trap would appear to be a matter of exceeding difficulty.

¹ G. Mallery, *Picture-writing of the American Indians*, p. 110, fig. 74. 10th An. Rep. Bur. Ethn. Washington 1893.

Fig. 1. The spiked wheel-trap in Africa.

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|--|---|
| 1. Ancient Egypt. | 18. Acholi. |
| 2. Ababde. | 19. Shuli. |
| 3. Arabs of Dongola. | 20. Bari. |
| 4. Arabs on the Bayuda steppe (Kabbabish?) | 21. Nuer. |
| 5. Baggara. | 22. Banyoro. |
| 6. Hamran. | 23. Baganda. |
| 7. Beni Amer. | 24. Kiziba. |
| 8. The neighbourhood of Gallabat. | 25. Region of Touzeur? |
| 9. Galla (at the upper course of Dinder). | 26. " " Khenchela? |
| 10. Elgumi. | 27. Tuareg of Air. |
| 11. Turkana. | 28. Bolewa and other tribes in the Bauchi district. |
| 12. Suk. | 29. Bachama. |
| 13. Ndorobo. | 30. Borgu. |
| 14. Nandi. | 31. Northern Togo. |
| 15. Bantu in Kitosh, N. Kavirondo. | 32. N. Territory of the Gold Coast. |
| 16. Lango. | 33. Maka, Cameroon? |
| 17. Karamojo. | |

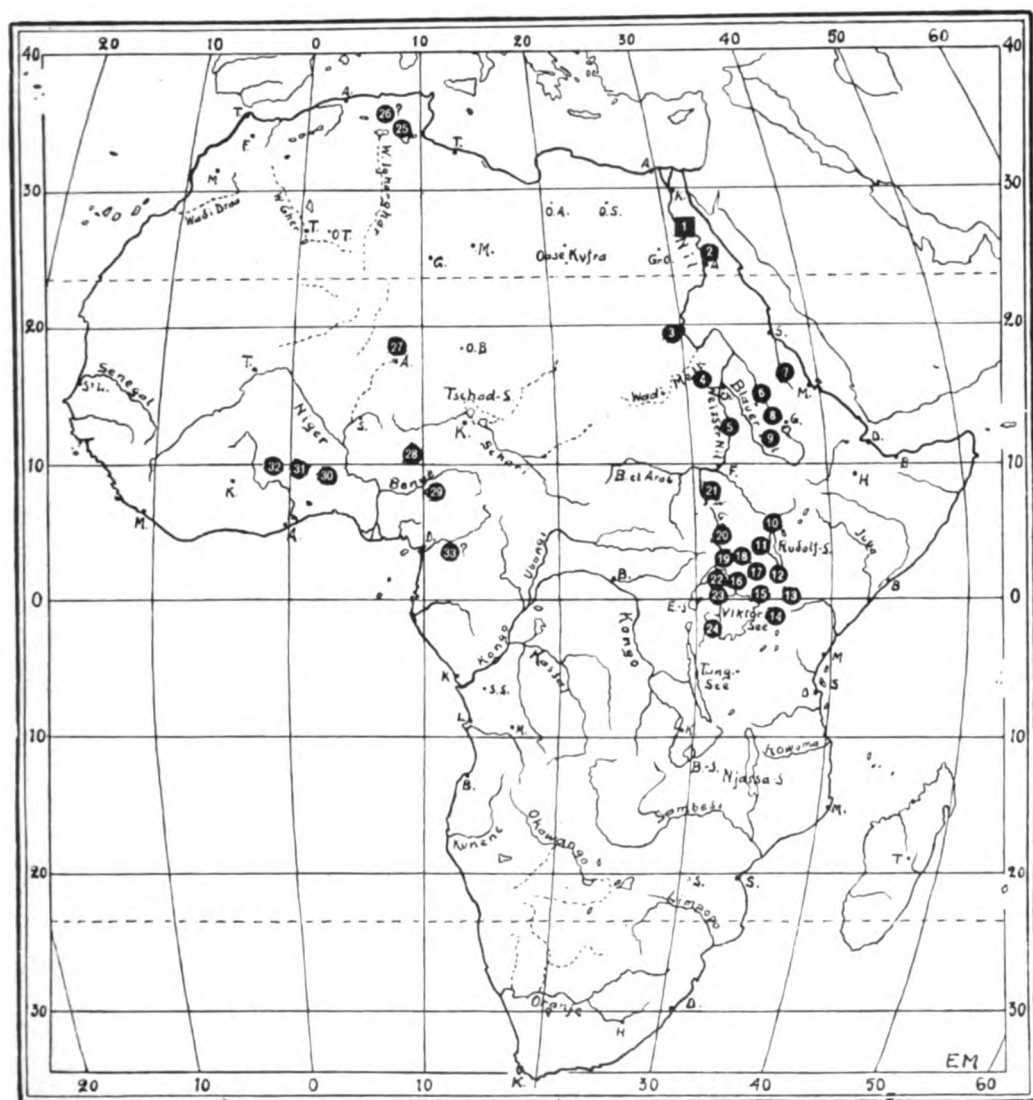


Fig. 1. The spiked wheel-trap in Africa.
(vide p. 22).



Fig. 2. Wheel-trap. Prehistoric tomb-painting at Hieraconpolis (after Capart).



Fig. 3 Wheel-trap? Pattern on an earthenware-cup, found at El Amrah. In the Oxford Museum. (after Mac Iver and Mace).

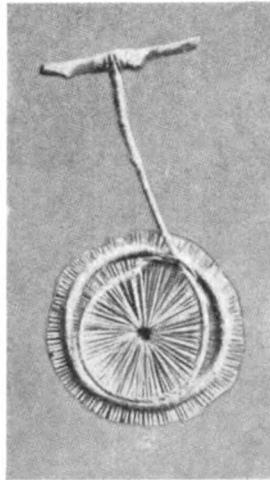
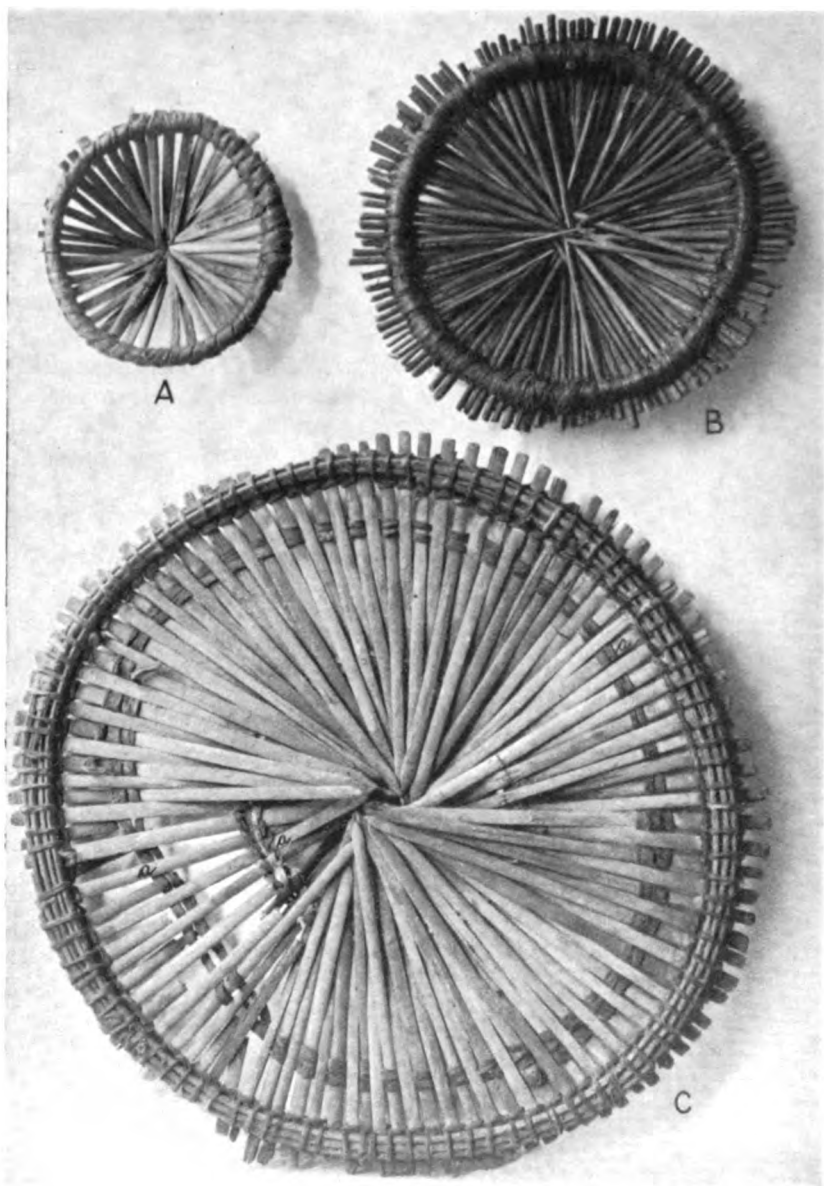


Fig. 6. «Star» game trap. Tuareg of Air. (after Rodd).



E. Manke, phot.

Fig. 4. Wheel-traps. *A* Baggara. *B* Kitosh, N. Kavirondo. *C* Maka, Cameroon (?).
C's diameter is 53 cm. *a* leather straps.
(Riksmuseum).

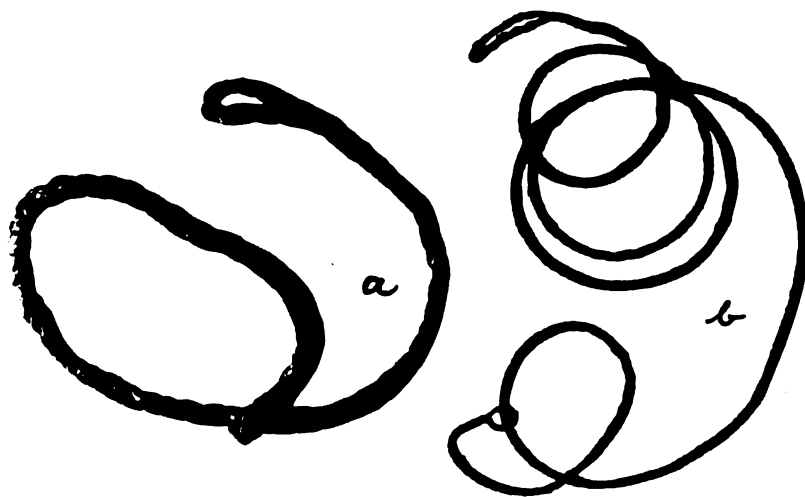


Fig. 5. Running nooses for spiked wheel-traps, each made of twisted strips of hide.

a Turkana (E. v. Otter's collection). *b* Bantu negroes in Kitosh, N. Kavirondo (author's collection).

a. length 1.85 m., diameter 2.8 cm. *b.* length 3.5 m., diameter 1.4 cm. (Riksmuseum).

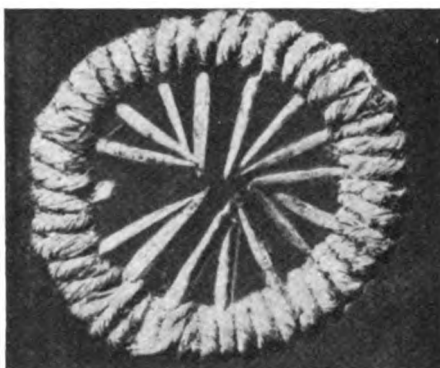


Fig. 7. Wheel-trap. Found at the oasis of Tun Huang.
(after A. Stein).

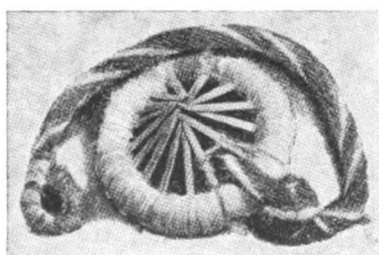


Fig. 8. Antelope trap. Region of Tengri-Nor,
(after Bower).

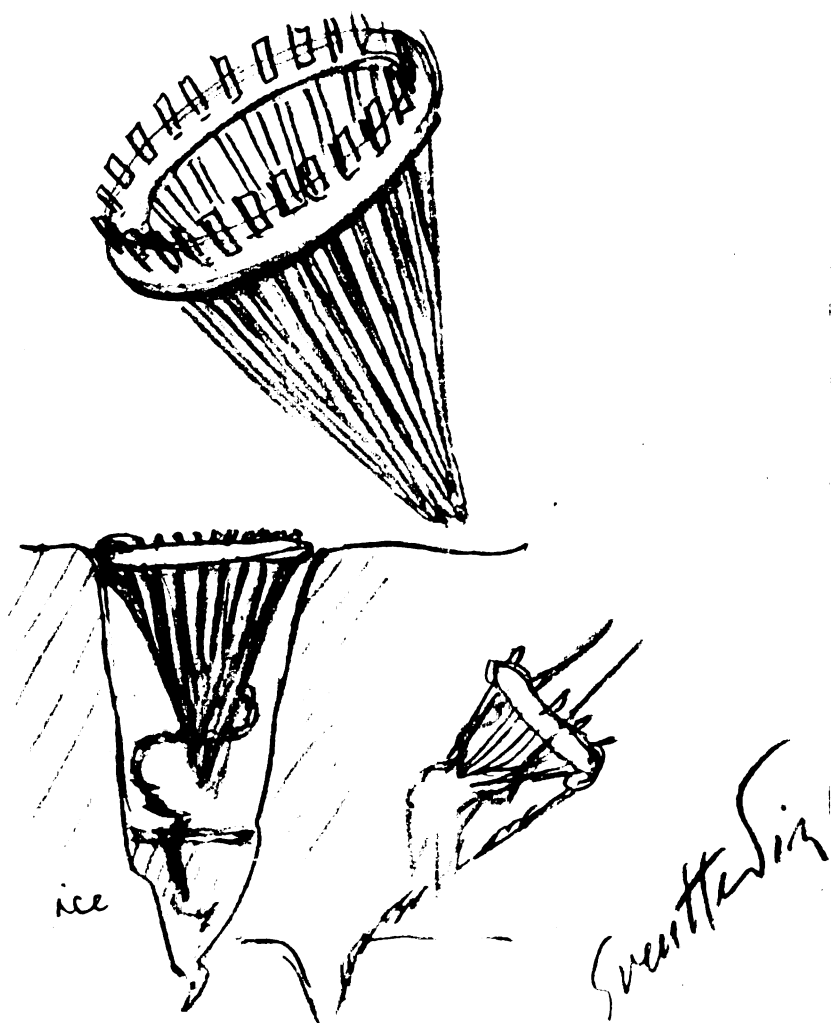


Fig. 9. Antelope trap. Karakorum.
(Drawn by Sven Hedin).

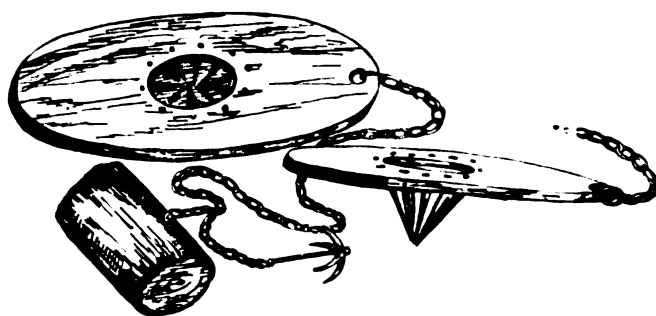


Fig. 10. Wheel-trap. Border region between Hungary and lower Austria.
(after H. M. v. Kadich).

RIKSMUSEETS ETNOGRAFISKA AVDELNING

SMÄRRE MEDDELANDEN

- N:r 1. *K. G. Lindblom*. Einige Details in der Ornamentik der
Buschneger Surinams. Stockholm 1926 Price Kr. 1: —
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